Attorney's Docket No. 035718/268948 PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Qu *et al.*	Confirmation No.:	8698
Appl. No.:	10/656,394	Group Art Unit:	1638
Filed:	9/5/03	Examiner:	M. Ibrahim
For:	CLONING AND CHARACTERIZATION OF THE BROAD-SPECTRUM RESISTANCE GENE PI2		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RULE 37 C.F.R. § 1.132 DECLARATION
of
Dr. Guo-Liang

I, Dr. Guo-Liang Wang, do hereby declare and say as follows:

1. I am skilled in the art of the field of the invention. I have a Ph.D. in Plant Genetics and Breeding from the University of the Philippines at Los Banos and International Rice Research Institute (IRRI), Philippines; a Master of Science degree in Plant Genetics from Fujian Agricultural University, Fuzhou China; and, a Bachelors of Science degree in Plant Genetics from the Hunan Agricultural University Changsha, China. I have had post-doctoral training at the University of California at Davis and at Texas A&M University. Presently, I am an Associate Professor in the Department of Plant Pathology at the Ohio State University, Columbus, Ohio. I am also currently an Adjunct Professor at the Hunan Agricultural University in Hunan, China and an Adjunct Professor at the Institute of Genetics, Chinese Academy of Sciences.

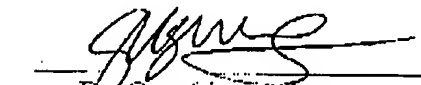
2. I have read and understood the Office Actions in the above case dated October 12, 2005 and March 11, 2005.

3. The October 12, 2005 Office Action, page 5, lines 1-3, requests that Applicants provide evidence that SEQ ID NO:7 can confer resistance to Blast. In item 4, below, Applicants provided data demonstrating that SEQ ID NO:7 does confer resistance to Blast.

4. A genetic complementation test using *Agrobacterium*-mediated transformation method was performed. The genomic fragment of *Nbs4-Pi2* (SEQ ID NO:7), which included 1522 bp of the 5'UTR and 116 bp of the 3' UTR were cloned into the CAMBIA1305.2 vector and the derived construct was designated pNbs4-Pi2. The susceptible *japonica* cultivar Nipponbare (NPB) was used as the recipient cultivar. A total of over 60 independent T1 lines were generated. Among them, 16 T1 lines of pNbs4-Pi2 were selected for the inoculation with the rice blast isolate KJ201 that is avirulent to Pi2 parental lineC101A51 but virulent to Nipponbasre. Ten T1 lines showed a typical resistance reaction to KJ201. See Appendix 1A, attached. Three T2 lines from the resistant T1 lines and one T2 line from the susceptible T1 lines were chosen for further confirmation of the cosegregation between the resistance phenotype and the transgene. An expected 3:1 segregation ratio of the resistant progeny to the susceptible progeny was observed in all the analyzed T2 lines. Molecular characterization of the DNA of the T2 plants using PCR analysis showed a perfect agreement between the resistance phenotype and the transgene (SEQ ID NO:7). See, Appendix 1B, attached.

5. For the above reasons, based on my education and scientific experience, I believe that SEQ ID NO:7 (NBS4) confers resistance to Blast and that the claims of the above-referenced application are therefore enabled.

6. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



1/10/2006

Dr. Guo-Liang Wang
Associate Professor
Department of Plant Biology
The Ohio State University
Columbus, Ohio

Date